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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,214

11/28/2006

Thomas Walther

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EXAMINER

CULLER, JILL E

ART UNIT

PAPER NUMBER

2854

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>Office Action Summary</b>	<b>Application No.</b> 10/589,214	<b>Applicant(s)</b> WALTHER ET AL.	
	<b>Examiner</b> Jill E. Culler	<b>Art Unit</b> 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 33-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-81 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060814</u> .  | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 38 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 38, applicant recites the step of applying comprises applying in a rotary web offset press, however claim 33, from which this claim ultimately depends, recites the application using sheet-fed offset printing. Since these cannot both be true, claim 38 cannot be examined on the merits at this time.

With respect to claim 43, the use of the term “twin-roll capacity” is unclear as it does not appear to have any standard meaning in the art. As applicant has not further defined what is meant by this term, it is assumed to mean any press having two rolls, however the term should be more clearly defined.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



Claims 44-47, 57-69, 64-65 and 81 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,147,662 to Grabau et al.

With respect to claim 44, Grabau et al. teaches a process for producing an RFID label having an antenna and an oscillating circuit using a printing process, comprising: providing a printable substrate; and applying at least part of at least one of the antenna and the oscillating circuit directly or indirectly to the substrate. See column 4, lines 51-56 and Figs. 1-2.

With respect to claims 45-47, although Grabau does not explicitly teach the use of a letterpress plate with, or without an offset cylinder, the teaching of Grabau et al. that the printing is carried out using conventional printing cylinders (see column 4, lines 54-55) is considered to be sufficient to teach these limitations as the use of these cylinders with a web-fed press, as seen in Fig. 2 of Grabau et al. is well known in the art.

With respect to claims 57-59 and 81, Grabau et al. teaches the substrate can be a fibrous material, a film, or a fabric of at least one of natural and synthetic fibers and can be compressible. See column 4, lines 40-45.

With respect to claims 64-65, Grabau et al. teaches said step of applying further comprises the steps of printing two lines with different length next to each other over a certain portion of their length, and connecting the two lines to each other at ends of a shorter line of the two lines to produce a capacitive element, or of printing a base line, printing an insulator over part of the base line, and printing an opposing line to produce a capacitive element. See column 5, lines 9-20 and Fig. 3.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33-41, 48-50, 55-56 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabau et al. in view of U.S. Patent No. 6,772,709 to Shibata

With respect to claim 33, Grabau et al. teaches a process for producing an RFID label having an antenna and an oscillating circuit by using a printing process, comprising: providing a printable substrate; and applying at least part of at least one of the antenna and the oscillating circuit to the substrate using a printing process. See column 4, lines 51-56 and Figs. 1-2.

Grabau et al. does not teach this application using a sheet-fed offset printing process.

Shibata teaches a standard sheet-fed offset printing process. See column 4, lines 14 and Fig. 1.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Grabau et al. to use a sheet-fed offset printing process in order to be able to print on individual sheets instead of a continuous web which requires separation into individual components after the printing process.

With respect to claim 34, Grabau et al. teaches that said step of applying further comprises using a conductive paste or conductive ink to print conducting tracks as part



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of at least one of the antenna and the oscillating circuit. See column 4, lines 55 – column 5, line 8.

With respect to claim 35, Grabau et al. teaches that the conductive ink is used and the conductive ink is an ink with metal particles. See column 4, lines 55 – column 5, line 8.

With respect to claim 36, Grabau et al. teaches that the conductive paste is used and the conductive paste contains carbon black or carbon fibers. See column 4, lines 55 – column 5, line 8.

With respect to claim 37, Shibata teaches that said step of applying comprises applying the conductive paste or the conductive ink in a sheet-fed offset press with gripper transport. See column 4, lines 1-29.

With respect to claim 39, Shibata teaches that said step of applying includes applying part of at least one of the antenna and the oscillating circuit to a rear surface of the substrate which is formed as a sheet, and flipping over the sheet in a turning device. See column 4, lines 30-49.

With respect to claims 40-41, Shibata teaches a further step of applying a protective varnish or protective ink to the substrate after part of at least one of the antenna and the oscillating circuit has been printed, wherein said step of applying a protective varnish or protective ink comprises transferring the protective varnish or protective ink to the substrate in a sheet-fed offset press. See column 4, lines 57-64.



With respect to claims 48-50 and 80, Grabau et al. teaches the substrate can be a fibrous material, a film, or a fabric of at least one of natural and synthetic fibers and can be compressible. See column 4, lines 40-45.

With respect to claims 55-56, Grabau et al. teaches said step of applying further comprises the steps of printing two lines with different length next to each other over a certain portion of their length, and connecting the two lines to each other at ends of a shorter line of the two lines to produce a capacitive element, or of printing a base line, printing an insulator over part of the base line, and printing an opposing line to produce a capacitive element. See column 5, lines 9-20 and Fig. 3.

Claims 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabau et al. in view of Shibata, as applied to claims 33-41, 48-50, 55-56 and 80 above, and further in view of U.S. Patent No. 6,050,189 to Junghans et al.

With respect to claims 42-43, Grabau et al. and Shibata teach all that is claimed, as in the above rejection of claims 33-41, 48-50, 55-56 and 80, except wherein said step of applying a protective varnish or protective ink comprises transferring the protective varnish to the substrate in a flexo press with an ink chamber blade and a screen roller and twin-roll capacity.

Junghans et al. teaches a method of applying a protective varnish or protective ink in a flexo press with an ink chamber blade and and a screen roller and twin-roll capacity. See column 6, lines 11-37 and Fig. 2.



It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the apparatus of Grabau et al. to apply the varnish using a flexo press, as taught by Junghans et al., as Junghans et al. teaches this is an effective apparatus for applying a smooth surface.

Claims 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabau et al. in view of Shibata as applied to claims 33-41, 48-50, 55-56 and 80 above, and further in view of U.S. Patent No. 3,392,702 to Warner

With respect to claim 51, Grabau et al. and Shibata teach all that is claimed, as in the above rejection of claims 33-41, 48-50, 55-56 and 80 except for precoating, prevarnishing, or preprinting the substrate with a varnish or a pre-inking medium.

Warner teaches a method of precoating a printing medium before it is used in a printing process. See column 1, lines 28-42.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the process of Grabau et al. to include a precoating step, as taught by Warner, in order to make a more desirable printable surface.

With respect to claims 52-54, although Warner does not explicitly teach the precoating, prevarnishing, or preprinting is effected by direct letterpress, by a letterpress plate, acting indirectly by way of a blanket cylinder, or by a printing unit in an offset press, it would have been obvious to one having ordinary skill in the art that all of these are conventional printing methods which could readily be applied to the application of this precoating as they were to the printing.



Claims 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabau et al. in view of Warner.

With respect to claim 60, Grabau et al. teaches all that is claimed, as in the above rejection of claims 44-47, 57-69, 64-65 and 81 except for precoating, prevarnishing, or preprinting the substrate with a varnish or a pre-inking medium.

Warner teaches a method of precoating a printing medium before it is used in a printing process. See column 1, lines 28-42.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Grabau et al. to include a precoating step, as taught by Warner, in order to make a more desirable printable surface.

With respect to claims 61-63, although Warner does not explicitly teach the precoating, prevarnishing, or preprinting is effected by direct letterpress, by a letterpress plate, acting indirectly by way of a blanket cylinder, or by a printing unit in an offset press, it would have been obvious to one having ordinary skill in the art that all of these are conventional printing methods which could readily be applied to the application of this precoating as they were to the printing.

Claims 66-71 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabau et al. in view of Shibata as applied to claims 33-41, 48-50, 55-56 and 80 above, and further in view of U.S. Patent No. 6,246,327 to Eberhardt

With respect to claim 66, Grabau et al. and Shibata teach all that is claimed, as in the above rejection of claims 33-41, 48-50, 55-56 and 80 except for the steps of forming



a recess in the substrate, and placing a further part of the oscillating circuit or an integrated circuit (IC) chip in the recess such that the further part of the oscillating circuit or the IC chip is mounted therein and connected to the part of the at least one of the antenna and the oscillating circuit, thereby producing a conductive connection between the further part of the oscillating circuit or the IC chip and the antenna.

Eberhardt teaches a process for creating an RFID circuit chip including the steps of forming a recess in the substrate, and placing a further part of the oscillating circuit or an integrated circuit (IC) chip in the recess such that the further part of the oscillating circuit or the IC chip is mounted therein and connected to the part of the at least one of the antenna and the oscillating circuit, thereby producing a conductive connection between the further part of the oscillating circuit or the IC chip and the antenna. See column 5, line 47 - column 6, line 17 and Fig. 8.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Grabau et al. to include forming a recess for inserting the RFID chip, as taught by Eberhardt, in order to form a seamless surface as a better protection for the chip.

With respect to claims 67-68, Eberhardt teaches that the recess is formed sufficiently deep so that an upper surface of the further part of the oscillating circuit or the IC chip arranged parallel to an upper surface of the substrate is at least flush with the upper surface of the substrate or the antenna after it has been placed in the recess. See column 5, line 47 - column 6, line 17 and Fig. 8.



With respect to claims 69-70, Eberhardt teaches that said step of forming the recess includes stamping, impressing, or grooving the substrate in one or more operating units within a printing press which is used for said step of applying. See column 5, line 47 - column 6, line 17 and Fig. 8.

With respect to claim 71, Eberhardt teaches that the substrate is a sheet and said step of forming the recess includes stamping, impressing, or grooving the substrate in a stamping press that produces one or more packaging cutouts from the substrate on which at least antennas and parts of oscillating circuits have been printed. See column 5, line 47 - column 6, line 17 and Fig. 8.

With respect to claim 78, Eberhardt teaches said step of applying includes applying at least one of an antenna or part of an oscillating circuit to the substrate, applying one of the oscillating circuit, a further part of the oscillating circuit, or an integrated circuit (IC) chip to the substrate together with the antenna or the part of the oscillating circuit, producing a conductive connection between the oscillating circuit or IC chip and the antenna, and sinking the oscillating circuit or IC chip and the antenna at least to a level of a surface of the substrate by deformation of the substrate. See column 5, line 47 - column 6, line 17 and Fig. 8.

Claims 72-77 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabau et al. in view of Eberhardt.

With respect to claim 72, Grabau et al. and Shibata teach all that is claimed, as in the above rejection of claims 44-47, 57-69, 64-65 and 81 except for the steps of forming



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a recess in the substrate, and placing a further part of the oscillating circuit or an integrated circuit (IC) chip in the recess such that the further part of the oscillating circuit or the IC chip is mounted therein and connected to the part of the at least one of the antenna and the oscillating circuit, thereby producing a conductive connection between the further part of the oscillating circuit or the IC chip and the antenna.

Eberhardt teaches a process for creating an RFID circuit chip including the steps of forming a recess in the substrate, and placing a further part of the oscillating circuit or an integrated circuit (IC) chip in the recess such that the further part of the oscillating circuit or the IC chip is mounted therein and connected to the part of the at least one of the antenna and the oscillating circuit, thereby producing a conductive connection between the further part of the oscillating circuit or the IC chip and the antenna. See column 5, line 47 - column 6, line 17 and Fig. 8.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Grabau et al. to include forming a recess for inserting the RFID chip, as taught by Eberhardt, in order to form a seamless surface as a better protection for the chip.

With respect to claims 73-74, Eberhardt teaches that the recess is formed sufficiently deep so that an upper surface of the further part of the oscillating circuit or the IC chip arranged parallel to an upper surface of the substrate is at least flush with the upper surface of the substrate or the antenna after it has been placed in the recess. See column 5, line 47 - column 6, line 17 and Fig. 8.



With respect to claims 75-76, Eberhardt teaches that said step of forming the recess includes stamping, impressing, or grooving the substrate in one or more operating units within a printing press which is used for said step of applying. See column 5, line 47 - column 6, line 17 and Fig. 8.

With respect to claim 77, Eberhardt teaches that the substrate is a sheet and said step of forming the recess includes stamping, impressing, or grooving the substrate in a stamping press that produces one or more packaging cutouts from the substrate on which at least antennas and parts of oscillating circuits have been printed. See column 5, line 47 - column 6, line 17 and Fig. 8.

With respect to claim 79, Eberhardt teaches said step of applying includes applying at least one of an antenna or part of an oscillating circuit to the substrate, applying one of the oscillating circuit, a further part of the oscillating circuit, or an integrated circuit (IC) chip to the substrate together with the antenna or the part of the oscillating circuit, producing a conductive connection between the oscillating circuit or IC chip and the antenna, and sinking the oscillating circuit or IC chip and the antenna at least to a level of a surface of the substrate by deformation of the substrate. See column 5, line 47 - column 6, line 17 and Fig. 8.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571)272-2159. The examiner can normally be reached on M-F 10:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jec

/Jill E. Culler/  
Primary Examiner, Art Unit 2854